

26 **Amendments to the Claims**

27 This listing of claims will replace all prior versions, and listings, of claims in
28 the application:

29 1. (Original) A method of forming a seed layer comprising:
30 forming a non-continuous metal layer within a recess in a substrate;
31 activating the non-continuous metal layer and at least one of a non-
32 deposited region within the recess; and
33 electrolessly depositing a seed layer on the non-continuous metal
34 layer and on the at least one non-deposited region within the recess.

1 2. (Original) The method of claim 1 wherein forming the recess
2 comprises forming a high aspect recess comprising an aspect ratio greater
3 than about 3:1.

1 3. (Original) The method of claim 1 wherein forming the non-
2 continuous metal layer comprises forming a non-continuous layer of at least
3 one of tantalum, tantalum nitride, tantalum silicon nitride, tungsten, titanium,
4 titanium tungsten, titanium nitride, titanium silicon nitride or a combination
5 thereof.

1 4. (Original) The method of claim 1 wherein activating the non-
2 continuous metal layer and the at least one non-deposited region within the

3 recess comprises forming an activation layer on the non-continuous metal
4 layer and on the at least one non-deposited region within the recess.

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1 5. (Original) The method of claim 4 wherein activating the non-
2 continuous metal layer and the at least one non-deposited region
3 within the recess comprises forming at least one of a palladium or
4 platinum layer on the non-continuous metal layer and the at least one
5 non-deposited region within the recess.

1 6. (Original) The method of claim 1 further comprising forming a
2 metal fill layer on the seed layer.

1 7. (Original) The method of claim 6 further comprising polishing the
2 metal fill layer by utilizing a chemical mechanical polishing process.

1 8. The method of claim 6 wherein forming the metal fill layer comprises
2 forming a substantially void free metal fill layer.

1 9. (Original) A method of forming a microelectronic structure
2 comprising:

3 forming a recess in a substrate;

4 forming a non-continuous metal layer within the recess;

5 activating the non-continuous metal layer and at least one non-
6 deposited region within the recess;
7 electrolessly depositing a seed layer on the non-continuous metal
8 layer and on the at least one non-deposited region within the recess; and
9 forming a metal fill layer over the seed layer.

1 10. (Original) The method of claim 9 wherein forming the recess
2 comprises forming a high aspect recess comprising an aspect ratio greater
3 than about 3:1.

1 11. (Original) The method of claim 9 wherein forming the non-
2 continuous metal layer comprises forming a non-continuous layer of at least
3 one of tantalum, tantalum nitride , tantalum silicon nitride, tungsten, titanium,
4 titanium tungsten, titanium nitride, titanium silicon nitride or a combination
5 thereof.

1 12. (Original) The method of claim 9 wherein electrolessly depositing
2 the seed layer comprises electrolessly depositing a copper layer comprising
3 a grain size of about 1 micron in diameter or greater.

1 13. (Original) The method of claim 9 wherein forming the metal fill
2 layer comprises electroplating a metal fill layer.

1 14. (Original) The method of claim 9 wherein forming the metal fill
2 layer comprises forming a substantially void free metal fill layer.

1 15. (Original) The method of claim 9 wherein forming the metal fill
2 layer comprises electroplating a copper layer.

1 16. (Withdrawn) A microelectronic structure, comprising:
2 a recess in a substrate;
3 a non-continuous metal layer disposed within the recess;
4 a seed layer disposed on the non-continuous metal layer and on at
5 least one non-deposited region within the recess; and
6 a metal fill layer disposed on the seed layer.

1 17. (Withdrawn) The structure of claim 16 wherein the seed layer
2 comprises a grain size of about 1 micron in diameter or greater.

1 18. (Withdrawn) The structure of claim 16 wherein the non-continuous
2 metal layer comprises at least one of titanium, tantalum, tantalum nitride,
3 tantalum silicon nitride, tungsten, titanium, titanium tungsten, titanium nitride,
4 titanium silicon nitride or a combination thereof.

19. (Withdrawn) The structure of claim 16 wherein the seed layer comprises copper.
20. (Withdrawn) The structure of claim 16 wherein the recess comprises a high aspect ratio recess, wherein the high aspect ratio comprises an aspect ratio greater than about 3:1
21. (Withdrawn) The structure of claim 16 wherein the metal fill layer comprises a substantially void free metal fill layer.